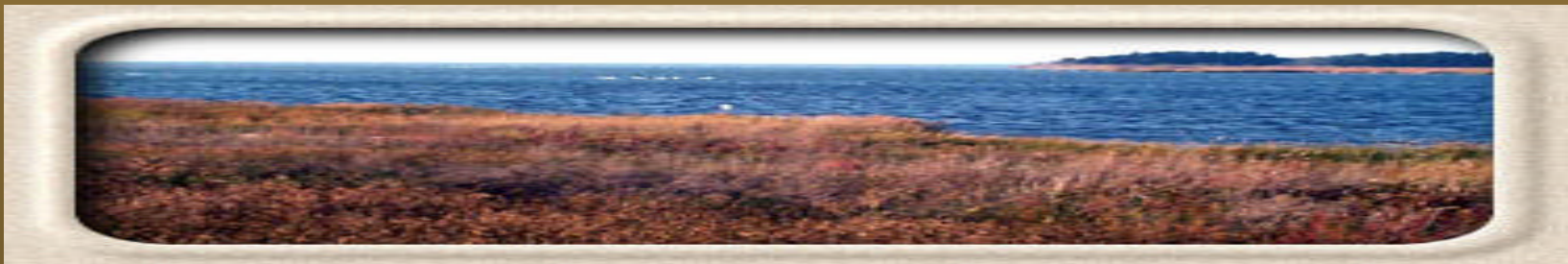


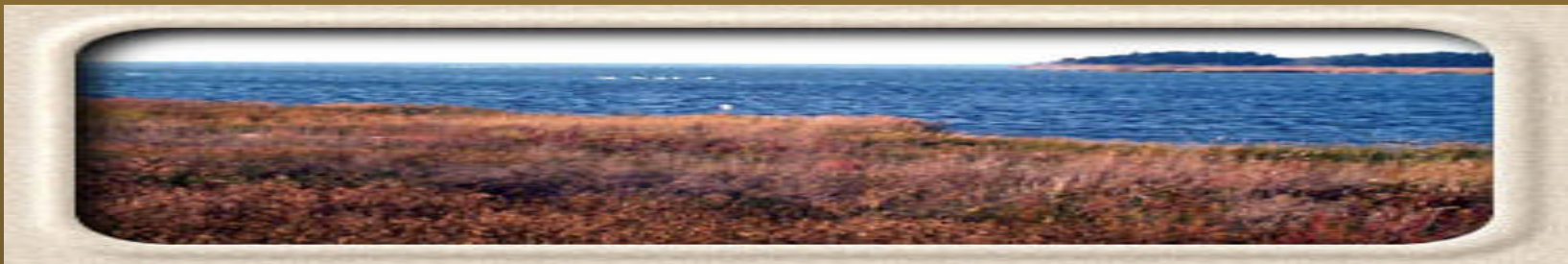
Nutrient Pollution Synergy

Briefing for the
NOS Senior Management Council
May 10, 1999



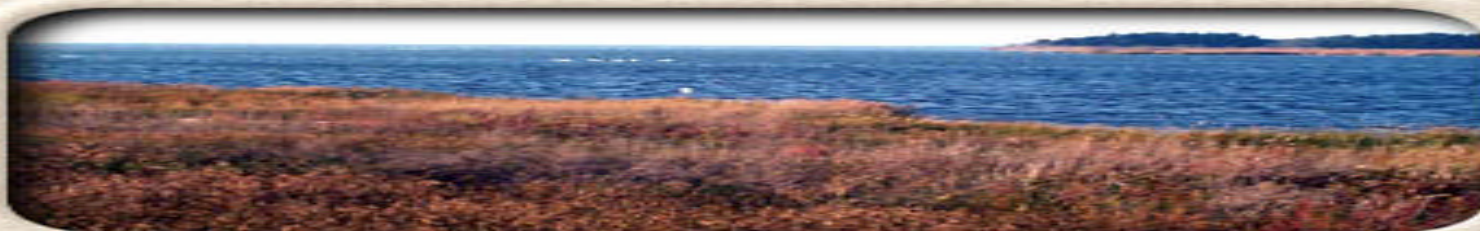
Why a Nutrient Synergy Team ?

- Enhance coordination within NOS
- Provide a comprehensive and consistent response to nutrient pollution
- Determine how to reduce nutrient pollution
- Improve our stewardship of coastal resources



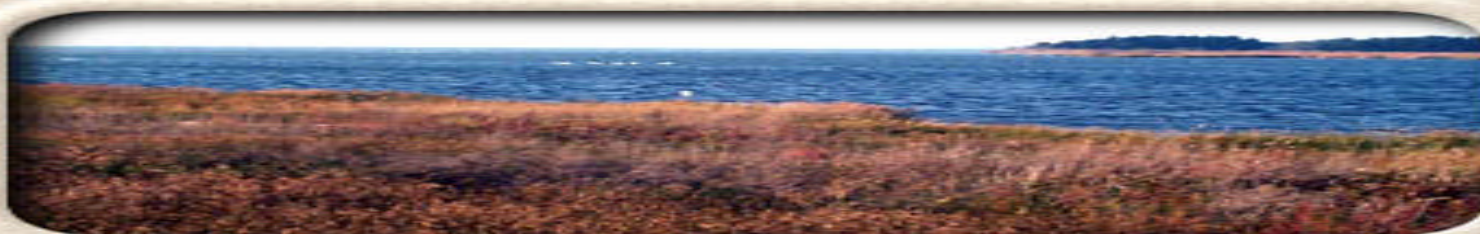
Team Members

- Frank Aikman, CS
- Dan Basta, SPO
- Suzanne Bricker, SPO
- Mary Culver, CSC
- Stephen Gill, CO-OPS
- Kurt Hess, CS
- Clement Lewsey, IPO
- Jim Lucas, NGS
- Danielle Luttenberg, NCCOS
- Geno Olmi, CSC
- Bruce Parker, CS
- Rich Permenter, ORR
- Nancy Ragland, NCCOS
- Andy Robertson, NCCOS
- Peyton Robertson, OCRM
- Don Scavia, NCCOS
- Becky Smyth, MBO



Progress

- Synergy Proposal (November '98)
- Initial SMC Briefing (November '98)
- Capabilities & Current Activities Workshop (January '99)
- Program and Staff Office Descriptive 3-pagers (January '99)
- Short Term Activities Planning (May '99)



Pressure-State-Response Paradigm

Pressure

Population

Sources

Transport

Delivery

Land Use

**L
O
A
D
S**

State

Primary

Secondary

Chlorophyll

Low DO

Epiphytes

HABs

Macro
Algae

SAV Loss

**I
m
p
a
c
t
s**

Response

Human
Health

Growth
Control

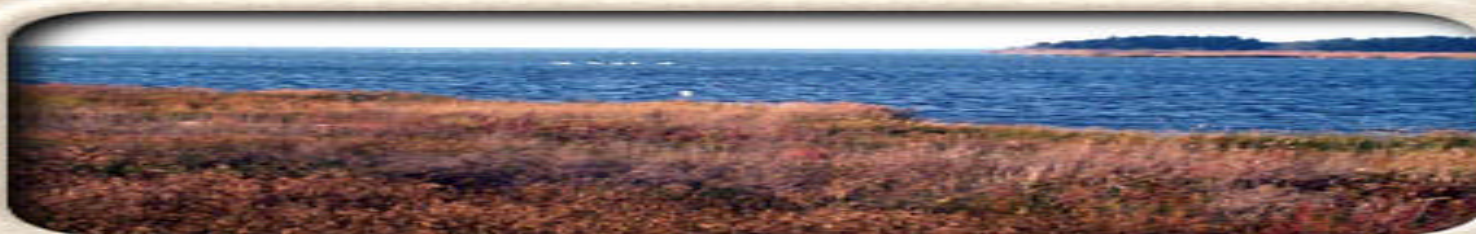
Tourism

Land Use
Restrictions

Fish Kills

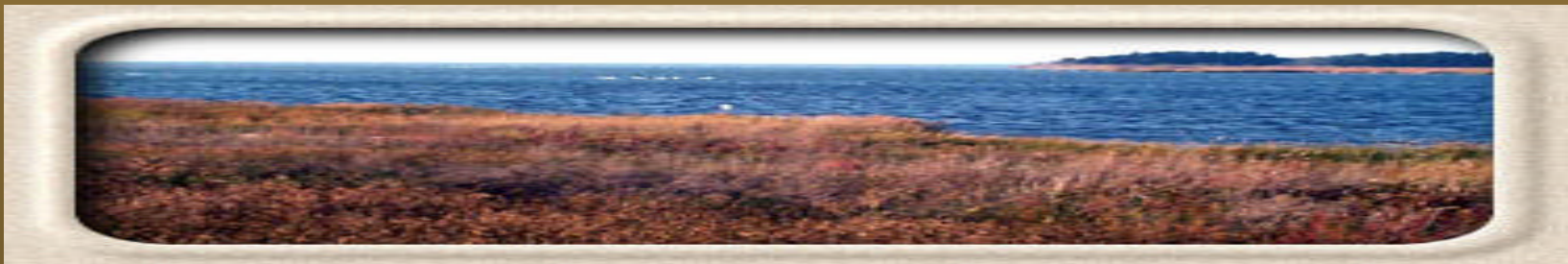
Change
Agricultural
Practices

Feedback Loop



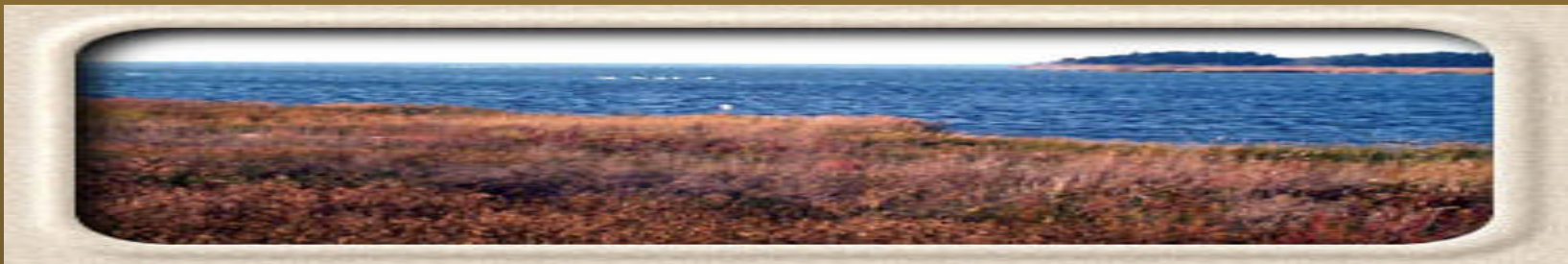
Inventory NOS Programs

- What causes loads to change?
- How do loads affect state?
- How does state impact ecosystem services?
- How do we respond to the impacts?



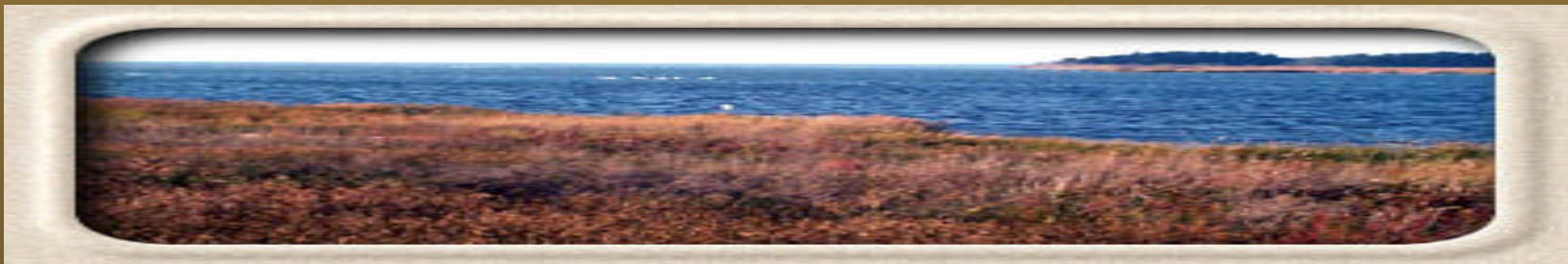
NOS Nutrient Pollution Strategy

Building on this paradigm and our NOS program inventory, we are developing a strategy, based on specific short term and long term activities, that addresses the nutrient pollution problem.



Integrated Assessments

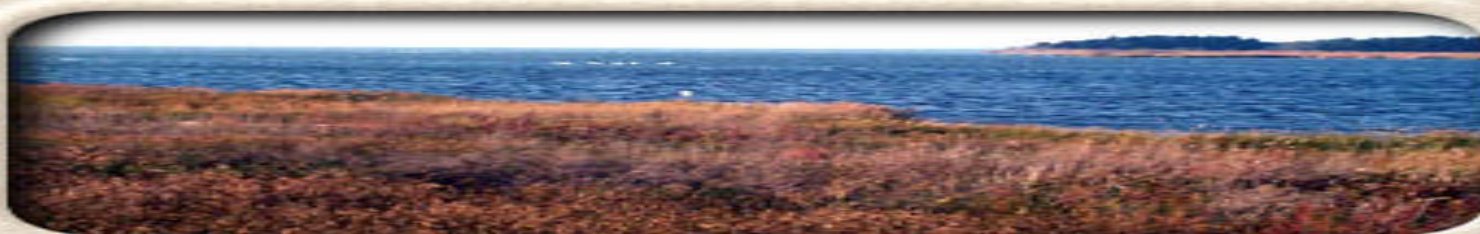
- Document the status and trends
- Examine the ecological and economic causes and consequences
- Evaluate the social and economic costs and benefits of alternatives



Assessments: Site Criteria

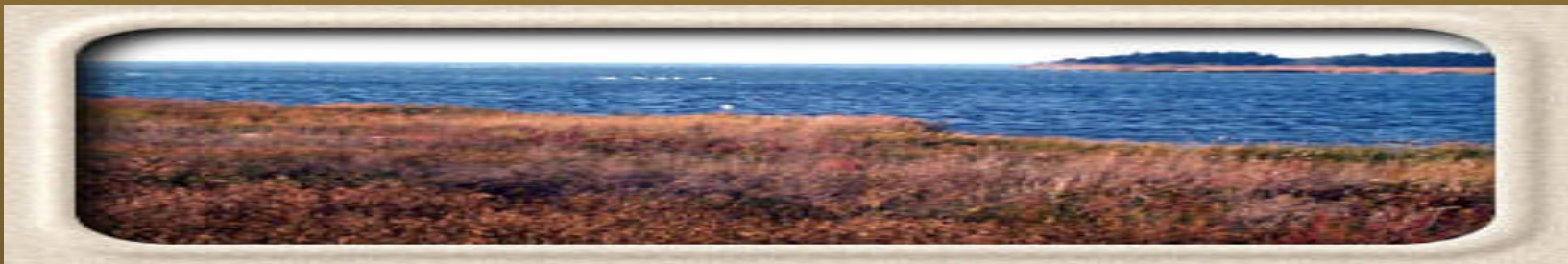
Examples

- Receptive management community
- Site with present NOS programs
- Built from existing information
- Based on existing resources
- Watershed scale
- Complete in 12 months



Benefits of Assessments

- Internal NOS coordination
- Determine gaps and information needs
- Provide an evaluation to assist managers in their stewardship responsibilities
- Refine NOS capabilities



Long-Term Synergy Program

Initial thoughts

- Develop NOS's Nutrient Pollution strategy
- Analyze the value of the assessments
- Fill in the gaps identified by the assessments
- Expand the number & scale of the assessments
- Meet regularly to share ideas

